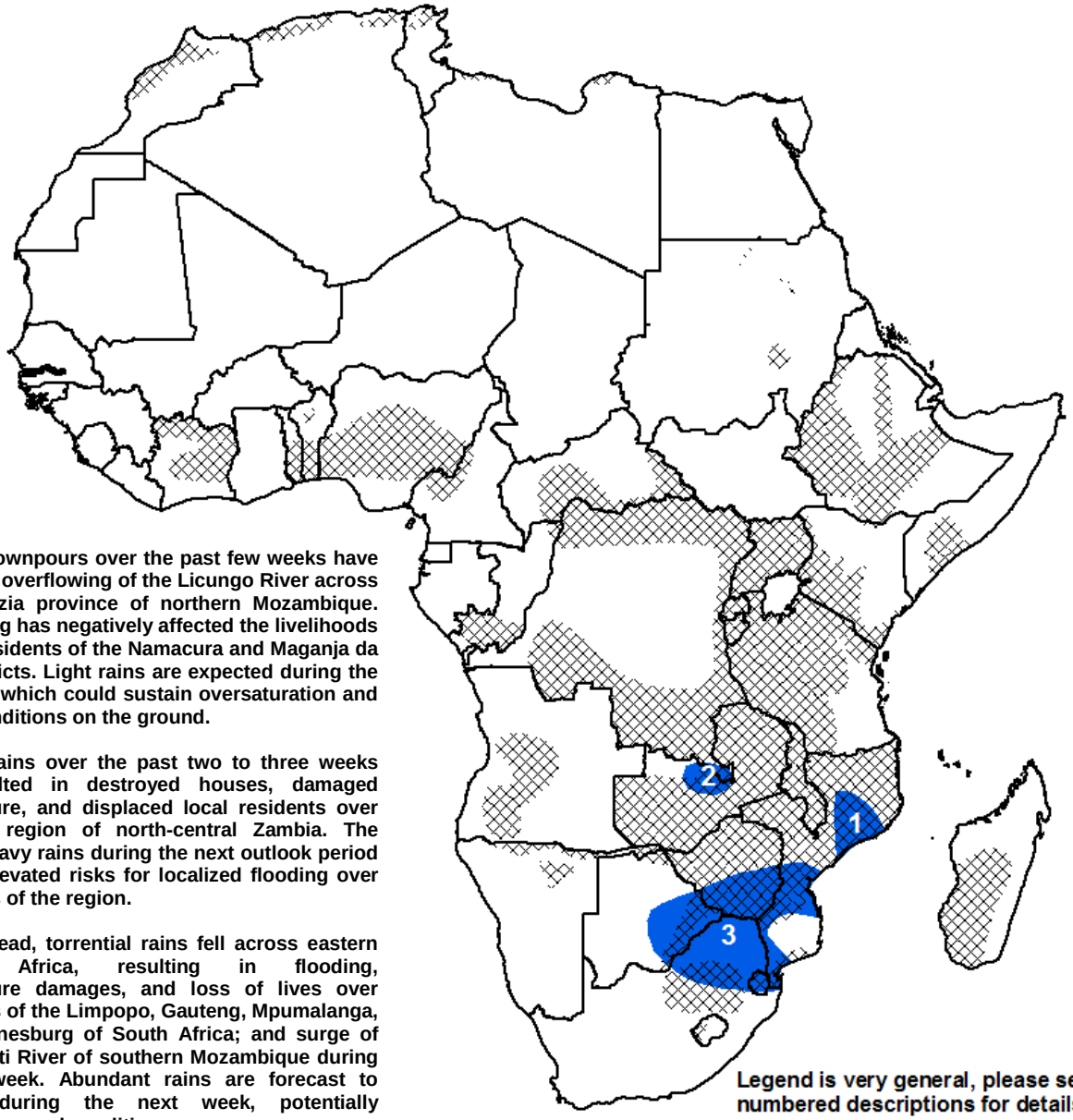
Climate Prediction Center's Africa Hazards Outlook
March 13 – March 19, 2014

- **Torrential rains have continued and led to flooding over many local areas of Southern Africa during the past week.**
- **Heavy and above-average rains are forecast over the Greater Horn of Africa during the next outlook period.**



1) Heavy downpours over the past few weeks have caused the overflowing of the Licungo River across the Zambezia province of northern Mozambique. The flooding has negatively affected the livelihoods of many residents of the Namacura and Maganja da Costa districts. Light rains are expected during the next week, which could sustain oversaturation and worsen conditions on the ground.

2) Heavy rains over the past two to three weeks have resulted in destroyed houses, damaged infrastructure, and displaced local residents over the Kitwe region of north-central Zambia. The forecast heavy rains during the next outlook period maintain elevated risks for localized flooding over many areas of the region.

3) Widespread, torrential rains fell across eastern Southern Africa, resulting in flooding, infrastructure damages, and loss of lives over many areas of the Limpopo, Gauteng, Mpumalanga, and Johannesburg of South Africa; and surge of the Incomati River of southern Mozambique during the past week. Abundant rains are forecast to continue during the next week, potentially worsening ground conditions.

Widespread, abundant rains have continued in Southern Africa.

During the past week, an axis of heavy rains tilted South East – North West brought torrential rains throughout Southern Africa, in particular, its eastern portions (**Figure 1**). Rainfall amounts in excess of 200 mm were recorded over many local areas of eastern South Africa. The bulk of the rainfall was observed over the Limpopo, Gauteng, and Mpumalanga regions of northern South Africa, where flooding, infrastructure damages, displaced residents, and fatalities were reported. To the east, this past week's abundant rains also resulted in the flooding of the Incomati River along downstream areas of the Moamba, Magude, and Manhica districts of southern Mozambique. Meanwhile, widespread moderate to heavy rains fell over Angola, northeastern Namibia, Zambia, eastern Botswana, and southern Zimbabwe, helping to partially eliminate thirty-day deficits over the dry areas of Southern Africa, but increasing saturation over already-wet areas of the region. Farther North, coastal heavy rains were registered over Tanzania. The enhancement in rainfall during the past week has helped to provide relief and replenish soil moisture over the dry portions of eastern South Africa.

An analysis of the rainfall percentile indicated that much of Southern Africa has experienced wetter than average conditions over the past thirty days. Cumulative rainfall has ranked over the ninetieth percentile, i.e., amongst the top three wettest years over the past thirty years, across eastern Namibia, Botswana, northern Mozambique, and eastern Tanzania (**Figure 2**). This was attributed to atmospheric and oceanic conditions favorable to low-level convergence and moisture influx, leading to more frequent and above-average rains over Southern Africa. In contrast, northwestern Angola and localized areas of South Africa have experienced drier than average conditions, with thirty-day cumulative rainfall ranking below the tenth percentile. This was due to anomalous low-level divergence and its associated suppression of rainfall. The continuation of seasonal rainfall should be beneficial for cropping activities over moisture-deficient regions; but an excessive rainfall could also negatively impact the livelihoods of people over many already-saturated areas of Southern Africa.

Rainfall forecasts suggest onset of the March-May season in Eastern Africa.

During the past week, moderate to heavy rains were observed over western Ethiopia and southern Uganda, while little to no rainfall was recorded elsewhere. Since the beginning of February, small to moderate deficits have developed across Uganda and the southwestern and eastern parts of Ethiopia. During the next outlook period, model rainfall forecasts suggest the return of good rains throughout the Greater Horn of Africa, with moderate to heavy rains forecast over Ethiopia, northern Somalia, Uganda, Kenya, and Tanzania (**Figure 3**). This is expected to aid land preparation and cropping activities over many crop-producing areas of Eastern Africa during the March-May rainy season.

Satellite Estimated Rainfall (mm)
Valid: March 5 – March 11, 2014

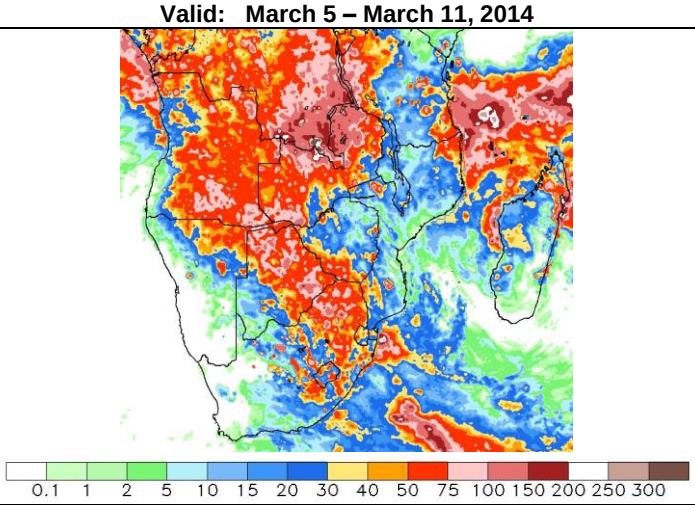


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Percentile
Valid: February 9 – March 10, 2014

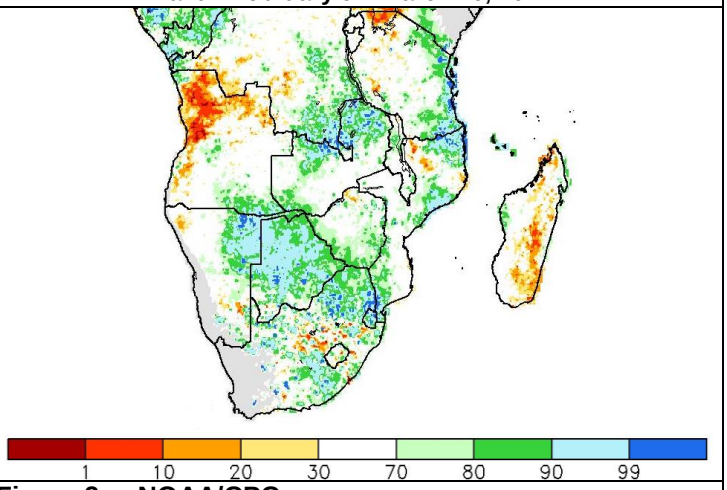


Figure 2: NOAA/CPC

GFS Rainfall Forecast (mm)
Valid: March 12 – March 19, 2014

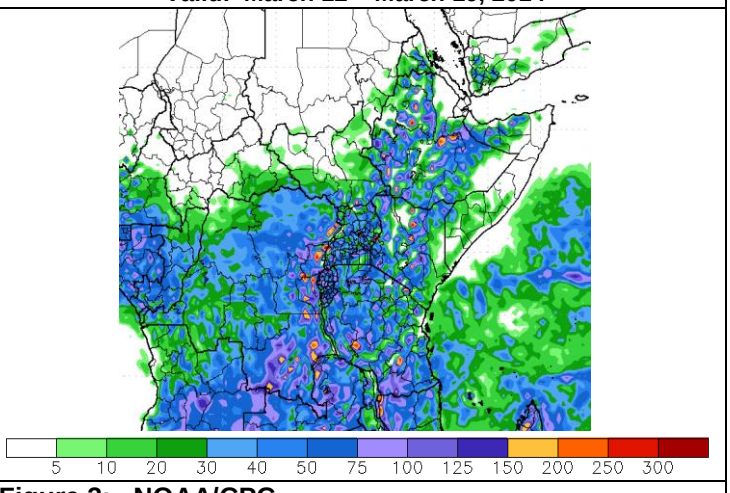


Figure 3: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.